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for all the components held on the grippers and that the respective gripper does not have to wait for the complete turning operation, but instead the component

Insert
A.

a device which has a movable placement head which has a ~~rotatable~~ Turret with a plurality of grippers mounted for rotation on a stationary post, which has a turning device adjacent the path of movement of the grippers. The turning device takes a chip from a gripper in a first holding station, turns the chip and returns the turned chip to a gripper down stream of the first holding station.

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is passed on to the next station as ~~it~~^{the component} is turned and can be picked up again ~~there~~^{without} without losing any cycle time.

- 5 ~~Advantageous developments of the invention are characterized in claims 2 to 5.~~
 with ~~the turning device having~~^{of the turning device having} two pivoting holder ~~with one aligned~~^{with one aligned} with the first holding station and ~~the other aligned with a downstream station~~^{the other aligned with a downstream station} and ~~the~~^{the} development according to claim 2 realizes the turning device in a simple way with few additional
 10 elements.

- ~~The development according to claim 3~~^{Insert B from page 3a.} allows flip chips to be safely transferred between the various suction surfaces.

- 15 ~~The development according to claim 4~~^{Insert C from page 3a} allows flip chips of different thicknesses to be handled without readjustments.

- 20 ~~The development according to claim 5~~^{of the first and second holding stations being adjacent} allows the turning device to be of a compact and lightweight design.

- 25 The invention is explained in more detail below on the basis of an exemplary embodiment represented in the drawing.

Brief Description of the Drawings

- Figure 1 shows in a schematized form a side view of a placement head for flip chips;
 30 Figure 2 shows another side view of the placement head according to figure 1, and

- Figure 3 shows a detail of the placement head according to figure 1 in another working
 35 phase.

Description of the Preferred Embodiment

According to figures 1 and 2, a turret-like placement head 1 has a stator 2 and a rotor 3, on which a

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multiplicity of radially protruding grippers 4 are arranged in a circulating manner. The placement head 1 is freely positionable in the direction of the perspectively represented arrows X and Y in a plane 5 parallel to the wafer ² and the substrate. ³ In the position represented in figure 1, it is located over a

Insert B

of the gripper being suction gripper extending radially from the turret and the two holders being suction pipettes mounted to pivot on axis extending perpendicular to the radially extending gripper and arranged on an axial extension of the gripper.

Insert C

of the grippers, ends of the holders while in the transfer position being spaced apart a distance greater than the thickness of the tip chip